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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,494	06/09/2005	Hameed S. Khan	26759U	7006
20529 7590 12/19/2006 NATH & ASSOCIATES 112 South West Street Alexandria, VA 22314			EXAMINER PHILLIPS, FORREST M	
			ART UNIT	PAPER NUMBER
			2837	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/19/2006	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/538,494	<b>Applicant(s)</b> KHAN ET AL.	
	<b>Examiner</b> Forrest M. Phillips	<b>Art Unit</b> 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) *                              | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

Claim 10 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim can not depend from another multiple dependant claim, in this case claim 8 is a multiple dependant and claim 10 is a multiple dependant with dependency upon claim 8. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2,7, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant admitted prior art in view of Hehmann (US4130175).

With respect to claim 1 Applicants admitted prior art (specification page 1 lines 25-33) discloses an ultra light trim composite comprising a first acoustically effective layer having an area mass between 200g/m<sup>2</sup> and 3000g/m<sup>2</sup> and a second underlayer, and in addition a film between the second underlay layer and the first acoustically effective layer.

Applicant's admitted prior art does not disclose the acoustically effective layer has an airflow resistance of between 500 Ns/m<sup>3</sup> and 10000 Ns/m<sup>3</sup> and an area mass between 200g/m<sup>2</sup> and 3000g/m<sup>2</sup>, the second underlay layer has a very low compression

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force deflection modulus, i.e. a stiffness value in the range between 100 Pa and 100000Pa and that the film layer is acoustically transparent.

Hehmann discloses the use of an acoustically transparent film (20 in figures 1 & 2) (column 3 lines 10-15).

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Hehmann to use an acoustically transparent film with the teachings of applicants admitted prior art.

The motivation for doing so would have been to allow both absorbing layers to damp the sound vibrations rather than have sounds reflected back into only the one sound absorption layer.

Applicants admitted prior art in view of Hehmann does not disclose wherein the acoustically effective layer has an air flow resistance of between 500 Ns/m<sup>3</sup> and 10000Ns/m<sup>3</sup> or that the underlay layer has a stiffness value in the range between 100 Pa and 100000 Pa. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select components with such airflow resistance and stiffness components, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

With respect to claim 2 Applicant's admitted prior art further discloses wherein the second underlayer is a back foamed layer (page 1 lines 25-33).

With respect to claim 7 Hehmann further discloses wherein the film is unperforated (column 3 lines 1-3). An imperforate film would inherently have a greater transmission loss than the same film if it were perforated.

With respect to claim 8 dependant upon any of claims 1,2 or 7, applicant's admitted prior art in view of Hehmann discloses the invention as claimed except wherein the first acoustically effective layer has a thickness of 0.5mm to 8.0 mm. It would have been obvious at the time the invention was made to select such a thickness given an amount of sound to be attenuated, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

With respect to claim 9 dependant upon 8 dependant upon 1,2 or 7. Applicant's admitted prior art in view of Hehmann discloses the invention as claimed except wherein the first acoustically effective layer has an area weight of about 1kg/m<sup>2</sup>. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select such an area weight as it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 f. 2d 272, 205, USPQ 215 (CCPA 1980).

With respect to claim 10, considering claim 10 to be dependant upon claim 1, Applicant's admitted prior art in view of Hehmann discloses the invention as claimed except wherein the second underlay layer has a thickness of about 20 mm. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select such a thickness, as it has been held that discovering an optimum value of a

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result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA1980).

With respect to claim 11 Hehmann further discloses wherein the film layer has a thickness of about 0.01 to 1.0 mm (column 3 line 5).

Claims 3-6, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant admitted prior art in view of Hehmann as applied to claim 1 above, and further in view of Alts (US6145617).

Applicant's admitted prior art in view of Hehmann discloses the composite according to claim 1 but does not disclose expressly that the second underlay layer consists of a foam slab.

Alts disclose a composite having a foam layer (13 in figure 4), a film layer (14 in figure 4) and an acoustically effective layer (21 in figure 4). As understood by examiner the foam layer (13 in figure 4) of Alts consists of a foam slab.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Alts to use a foam slab with the composite of applicant's admitted prior art in view of Hehamann for the purpose of simplifying construction through the use of existing components.

With respect to claim 4 Alts further discloses wherein the foam slab comprises an open pored skin (column 3 lines 65-66).

With respect to claim 5 Alts further discloses wherein the film is perforated in order to increase the absorption properties (column 3 lines 64-65).

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With respect to claim 6 Alts further discloses wherein the film is micro perforated (column 3 lines 64-65).

With respect to claim 8 dependant from any of claims 3-6, applicant's admitted prior art in view of Hehmann and Alts discloses the invention as claimed except wherein the first acoustically effective layer has a thickness of 0.5mm to 8.0 mm. It would have been obvious at the time the invention was made to select such a thickness given an amount of sound to be attenuated, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

With respect to claim 9 depending from 8 depending on any of 3-6 it would have been obvious to select a weight within the given range as it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272,205 USPQ 215 (CCPA1980).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. O'Reagan et al (20050016793); Haines (US5824973); Khambete et al (US6631785); McNett et al (US6123171); Or'reagan et al (US6983822); Gaffigan (US5584950).

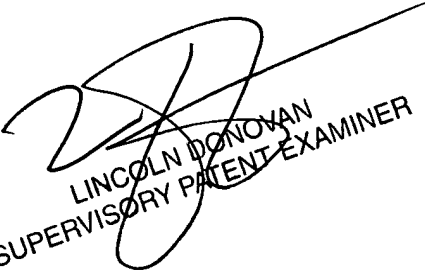
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Forrest M. Phillips whose telephone number is 5712729020. The examiner can normally be reached on Monday through Friday 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 5712721988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FP

  
LINCOLN DONOVAN  
SUPERVISORY PATENT EXAMINER